

ABSTRACT

The invention provides an *in vivo* screening assay and an *in vitro* screening assay for rapid screening of diabetes. A method of the invention includes determining a first glucose concentration in an ocular fluid of a patient; administering orally a load of carbohydrate to the patient; determining a second glucose concentration in an ocular fluid of the patient at a period of time of less than 50 minutes after orally administering of the load of carbohydrate; comparing the second glucose concentration with the first glucose concentration to determine if the patient is likely to be a diabetic. The method of the invention is performed by using a kit of the invention. The kit comprises: (1) a glucose-sensing ophthalmic device and instructions for using the glucose-sensing ophthalmic device to screen for diabetes; or (2) two or more tear-collecting devices, and a testing agent composition which specifically reacts with glucose to form a detectable signal. The glucose-sensing ophthalmic device comprises a testing agent composition which specifically and reversibly interacts with glucose to form a detectable optical signal which changes in a concentration-dependent manner.